

**ABSTRACT OF THE DISCLOSURE****BARCODE SINGLE LASER SCANNER TARGETING**

5           A robot apparatus and a barcode scanner to be used  
for collecting positional data parallel to the scan  
direction in, for example, a library storage system is  
provided. In one embodiment, the robotic apparatus  
includes a barcode scanner having a scan path and an  
10   attenuation surface within the scanner scan path. The  
barcode scanner scans the target while the robotic  
apparatus is moved in a direction parallel with the scan  
path. Positional data is collected in conjunction with  
the readability limits of the barcode target. The  
15   central position of the target in a parallel direction to  
the scan path is determined based on the readability of  
the barcode target and the correlating positional data.  
The barcode scanner can also scan the target while the  
robotic apparatus is moved in a direction perpendicular  
20   with the scan path. Positional data is collected in  
conjunction with the readability limits of the barcode  
target. The central position of the target in a  
perpendicular direction to the scan path is determined  
based on the readability of the barcode scanner and the  
25   correlating positional data.